



**International Union Against  
Tuberculosis and Lung Disease**  
*Health solutions for the poor*

## **New Links Found Between Tuberculosis and Non-communicable Diseases**

**CDC: One in six TB patients in US has diabetes; Diabetes increases TB-related hospital costs by \$20,000 per patient**

**Chronic kidney disease creates escalating risks of developing tuberculosis over time**

**Children exposed to household secondhand tobacco smoke at increased risk of TB infection**

**Friday, 28 October 2016 (Liverpool, UK)** – A series of new research announced today demonstrates linkages between tuberculosis (TB), an infectious disease, and non-communicable diseases including chronic kidney disease and diabetes. In one study, the U.S. Centers for Disease Control and Prevention (CDC) announced research involving 102,072 patients, showing that diabetes is on the rise among TB patients and adding substantially to the costs of hospitalisation. The research was presented at the 47<sup>th</sup> Union World Conference on Lung Health, convening in Liverpool, UK, 26-29 October 2016.

“Each year that goes by brings new evidence of the links between TB and non-communicable diseases,” said José Luis Castro, Executive Director of The International Union Against Tuberculosis and Lung Disease (The Union). “Once we learn that children are at much higher risk of TB when they live with adults who smoke tobacco, reducing tobacco use becomes an important part of the fight against TB.”

“Ending TB is going to take a ‘big tent’ approach,” said Dr Paula I. Fujiwara, The Union’s Scientific Director. “We need to enroll researchers, experts and communities affected by health issues that go beyond TB but nevertheless play a clear role in TB’s spread.”

The following studies were presented at the 47<sup>th</sup> Union World Conference today:

### **Abstract OA-421-28: Tuberculosis and diabetes: Trends in hospitalisations and impact on healthcare costs in the United States**

In a study conducted by the US Centers for Disease Control and Prevention (CDC), researchers found that out of 102,072 primary TB hospitalizations in the United States, 16.5% also had diabetes. Over the 12-year research period, the rate of primary TB hospitalizations where the patients also had diabetes increased by 27.6%, while the rate of primary TB hospitalisations where the patient did not have diabetes decreased by 50%. This increase was exclusively due to an increase in type 2 diabetes, which was two to 19-times more prevalent among primary TB hospitalisations than type 1 diabetes. Treatment costs for diabetes-tuberculosis (DM-TB) were, on average, \$20,000 more expensive to treat, per-patient, compared with cases of TB.

**Abstract OA-423-28: Chronic kidney disease progression and risk of tuberculosis: a cohort study**

In a study undertaken by the Institute of Epidemiology and Preventive Medicine at National Taiwan University, researchers found that those suffering chronic kidney disease had an increased risk of tuberculosis. The researchers assessed 116,637 participants in Taiwan between 2005-2015. After a median follow-up of 9.2 years, 884 cases of tuberculosis occurred, suggesting a dose-response relationship between progression of chronic kidney disease and risk of tuberculosis. These findings can guide tuberculosis screening strategies to target patients at various stages of CKD, a disease whose prevalence is on the rise globally.

**Abstract OA-466-29: The impact of household environmental tobacco smoke exposure on risk of TB infection in children with household TB exposure**

In a study conducted by Stellenbosch University, South Africa, researchers found that the risk of TB infection was three times higher among children exposed to household environmental tobacco smoke (ETS) compared with children who had not been exposed. The results offer insight into the impact that tobacco-cessation programmes could have to reduce TB infections amongst children, especially in high-TB and high tobacco-use settings. 671 Children (aged three months-15 years) with recent household exposure to adult pulmonary TB were recruited to the study. 77% (513) of children reported household ETS exposure, and TB infection was present in more than half of those children (51% tested positive for TB infection using a tuberculosis skin test, and 57% tested positive for TB infection using a more accurate Interferon Gamma Release Assay, or IGRA, test).

**Media Registration:**

Media are strongly encouraged to [register](#) prior to the conference.

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**[About The International Union Against Tuberculosis and Lung Disease \(The Union\)](#)**

Since its founding as a global scientific organisation in 1920, The Union has drawn from the best evidence and expertise to advance solutions to public health challenges affecting people living in poverty. The Union is currently progressing solutions for tuberculosis, HIV, tobacco-related diseases and other lung and non-communicable diseases. With close to 17,000 members active in more than 140 countries, The Union has its headquarters in Paris and 11 offices in Africa, the Asia Pacific, Europe, Latin America, North America and South-East Asia.

**[About the World Conference on Lung Health](#)**

The Union World Conference on Lung Health is the world's largest gathering of clinicians and public health workers, health programme managers, policymakers, researchers and advocates working to end the suffering caused by lung disease, with a focus specifically on the challenges faced by the low- and middle-income countries. Of the 10 million people who die each year from lung diseases, some 80 percent live in these resource-limited countries.

Our theme this year, **Confronting Resistance: Fundamentals to Innovations**, addresses a number of critical areas for discussion, including the growing problem of resistance to existing TB drugs, which is one of the most important challenges facing us today, while also reflecting our global tobacco control work, which requires coordinated efforts to confront resistance from the powerful tobacco industry and to introduce the innovative policies needed to de-normalise and reduce tobacco use.